APPENDIX (A)

List of CSFs for ERP Implementation

Used by Prior Research (1999-2008)

Research	Year	Critical Success Factors
Al-Fawaz et al.	2008	• Top management support • Business plan and vision • Re-engineering business process • Effective project management and project champion • Teamwork and composition • ERP system selection • User involvement • Education and training
Bernroider	2008	• IT governance domain • Top management commitment
Bradley	2008	• Project manager • Training of personnel • Presence of a champion
Bueno and Salmeron	2008	• Top management support • Communication • Cooperation • Training • Technological complexity
Hsu et al.	2008	• User participation • User satisfaction
Ifinedo	2008	• Top Management Support • Business vision • External expertise
Ke and Wei	2008	• Organizational culture • Strategic vision
Kerimoglu et al.	2008	• Competency and flexibility of the ERP • Project management
Motwani et al.	2008	• Business process change • Process change management
Muscatello and Chen	2008	• Strategic Initiatives • Executive Commitment • Human resources • Project Management • Software and hardware expertise • Business Process Redesign • Training • Project Support and Communications • Software Selection and Support

Ngai et al.	2008	• Appropriate business and IT legacy systems • Business plan/vision/goals/ justification • Business process reengineering • Change management culture and program • Communication • ERP teamwork and composition • Monitoring and evaluation of performance • Project champion • Project management • Software/system development, testing and troubleshooting • Top management support • Data management • ERP strategy and implementation methodology • ERP vendor • Organizational characteristics • Fit between ERP and business/process • National culture • Country-related functional requirement
Pan et al.	2008	• Formation of project team • ERP package selection • Inexperienced project manager • Selection of an implementation contractor • System integration problems • Refusal to change existing business process • Incompetent consultants • Insufficient end user involvement • Data conversion failure • Contract disputes
Sawah et al.	2008	• Top Management Support • Company Wide Support • Business Process Reengineering • Careful Package Selection • Minimal Customization • Effective Project Management • Users' Training • Users' Involvement • Consultants' Support • Vendors' Support • Organizational Culture
Wang et al.	2008	• Vendor support • Consultant competence • ERP project team member competence

		• ERP project manager leadership • Top management support • User support
Aloini et al.	2007	• Inadequate ERP selection • Ineffective strategic thinking and planning strategic • Ineffective project management techniques • Bad managerial conduction • Inadequate change management • Inadequate training and instruction • Poor project team skills • Inadequate BPR • Low top management involvement • Low key user involvement
Brown and He	2007	• Top management support • Implementation partner • Compatibility of software • Vendor support • Training • Infrastructure • Project scope • BPR • Consultation • Project team
Chien et al.	2007	• Centralization of decision making • Free flow of information in project team • Connectedness with user department • Temporal pacing • Project leader expertise • Existence of super ordinate goal • Characteristics of organizational incentive structure • Unfocused information-seeking
Finney and Corbett	2007	• Top management commitment and support • Change management • BPR and software configuration • Training and job redesign • Project team: the best and brightest • Implementation strategy and timeframe • Consultant selection and relationship • Visioning and planning • Balanced team • Project champion • Communication plan • IT infrastructure

		• Managing cultural change • Post-implementation evaluation • Selection of ERP • Team morale and motivation • Vanilla ERP • Project management • Troubleshooting/crises management • Legacy system consideration • Data conversion and integrity • System testing • Client consultation • Project cost planning and management • Build a business case • Empowered decision makers
Garcia-Sanchez and Perez-Bernal	2007	• Top management support • Project management • Teamwork composition for the ERP project • Communication • Business process reengineering • ERP system selection • Having external consultants • Training and support for users • Project champion • End users involvement • Change management plan • Tests and problem solutions • Legacy systems and IT infrastructure • Vision statement and adequate business plan
Grabski and Leech	2007	• Project management • Change management • Alignment of the business with the new system • Internal audit activities • Consultant and planning activities
Ifinedo	2007	• Firm size • Organizational culture • Organizational structure
Kamhawi	2007	• Organizational fit • Business process reengineering • Project planning • Ease of use • Organizational resistance
Nah et al.	2007	• Enterprise-Wide communication • Project management program

		• Organizational culture
Plant and Willcocks	2007	• Top Management Support • Clear Goals and Objectives • Project Management • Change management • Project Champion • Vendor Support • Careful Package Selection • Steering Committee • User Training • Dedicated resources • Use of consultant
Ramayah et al.	2007	• Top management involvement • Business plans • Vision • Vendor support • Change readiness • Teamwork • Team composition • Communication • Organizational resistance
Ranzhe and Xun	2007	• Top management involvement • Department's participation • Funds support • Cooperation between enterprise and software company • Reasonable expectation with definite target • Open and honest communication • Training • Group structure • Project management • Enterprise information management • Outsider competition pressure • Level of the supplier of ERP • Service of the supplier of ERP
Raymond and Uwizeyemungu	2007	• Environmental context • Organizational context • Technological context
Williams and Williams	2007	• Project Championing • User Management • Communication • Project Planning • Training

		• System Administrators
Woo	2007	• Top management • Project Team • Project management • Process Change • Education and Training • Communication
Al-Mashari et al.	2006	• ERP teamwork and composition • Top management support • Business plan and vision • Effective communication • Project management • Appropriate business and legacy systems • Software development, testing and troubleshooting • Effective decision-making • Effective training
Babu and Dalal	2006	• Resistance to change • Employee cooperation • Customization • Cost Escalation • Top management support • Training • Data migration
Fan and Fang	2006	• System quality • Information quality • perceived usefulness • System use • User satisfaction
Guang-Hui et al.	2006	• Top manager support • Project champion • External experts • Education and training • Accuracy of data • Project management • Business process reengineering • Communications
King and Burgess	2006	• Top management support • Vendor support • Project champion • Organizational resistance • Clear goals • Project management • Package selection/customization

		• Project team competence • Management of expectations • Process adaptation Interdepartmental communication • Interdepartmental collaboration
Kositanurit et al.	2006	• System quality • Ease of use
Nah and Delgado	2006	• ERP team composition, skills and compensation • Top management support and championship • Communication • Change management • Project management • System analysis, selection and technical implementation • Business plan and vision
Peslak	2006	• Percent of consultants in overall project team composition • Modifications to the system • Size of the organization
Sedera and Dey	2006	• Top Management Support • Project Management • Project Champion • Change Management Culture and Program • Communication • ERP teamwork and composition • Business Plan and Vision • Appropriate Business and IT legacy systems • Business Process Reengineering • Knowledge Management • Usage of vendor / consultant developed tools • Vendor / consultant partnerships
Sumner	2006	• Business justification for ERP • Vanilla ERP • ERP project team business experts • ERP project leadership • Effective training • Use of external ERP Consultants • CEO involvement • Existence of a champion • Reducing resistance to Change • Steering committee meets on a regular basis
Wang and Chen	2006	• Measurement uncertainty • System-specific investments • Explicit contracts

		• Implicit contracts • Reputation • Trust
Wang et al.	2006	• Group cohesion • Willingness to participate • Commitment to learning
Yusuf et al.	2006	• ERP software packages selection • ERP implementation team • BPR • Training • Outsourcing-Application Service Provider • Support of top management • Costly and time-consuming • Cultural differences • Technical complexity • Lack of professional personnel • Inner resistance
Bradley	2005	• Integration of business planning and IS planning • Full time project manager • Experienced project manager • Training • Use of consultants • Top management involvement • Existence of a champion • Reducing user resistance • Use of a steering committee headed by a CEO
Dowlatshahi	2005	• Customization of software • Data transferring and testing • The ERP system's fit with organizational culture • Vendor-led training
Ehie and Madsen	2005	• Project management principles • Feasibility/evaluation of ERP project • Top management support • Business process re-engineering • Consulting services • Cost/budget • Human resource development • IT infrastructure
Gargeya and Brady	2005	• Worked with SAP functionality/maintained scope • Project team/management support/consultants • Internal readiness /training • Deal with organizational diversity • Planning/development/budgeting

		• Adequate testing
Holsapple et al.	2005	• Task relevancy • Compatibility • Education level • Management level
Kim et al.	2005	• Human resources commitment • Cross-functional coordination • ERP software features • System development and project management • Change management • Organizational management
Xue et al.	2005	• Cultural issues (BPR) • Environment issues • Technical issues
Zhang et al.	2005	• Top management support • Company-wide support • Business process reengineering • Effective project management • Organizational culture • Education and training • User involvement • User characteristics • ERP software suitability • Information quality • System quality • ERP vendor quality
Amoako-Gyampah	2004	• Argument for changing technology • Ease of use • Personal relevance of technology • Satisfaction with the technology • Training • Project communication • Shared beliefs about the benefits of • the technology
Colmenares	2004	• Top management support • Presence of a champion • Project management • Best people full time • Interdepartmental cooperation and communication • Effective communication • Management of expectations • Technical and business knowledge

		• User participations • Discipline and standardization • Vendor package selection • User training • Implementation approach • Clear goals, focus and scope • Use of consultants • Minimal customization • Vendor/customer partnership • Use of steering committee • Business process reengineering • Use of vendor's development tools
He	2004	• Executive support • ERP-SCM vision • ERP concept • BPR
Ho et al.	2004	• System specification • Integrating legacy system • Organizational Change management • Top management support • Training of staff
Huang et al.	2004	• Business process reengineering • ERP supplier option and service • Clear ERP strategy, training program, communication skills • Integration and communication between legacy system and ERP • Project team and project management • Management participation and support • Accurate and prompt data acquisition
Liang and Xue	2004	• Localized software • Customization • Business process improvement, optimization, and reengineering (BPIOR)
Loh and Koh	2004	• Project champion • Project management • Business plan and vision • Top management support • Effective communication • ERP teamwork and composition • Business process reengineering (BPR) and minimum customization • Change management program and culture • Software development, testing and troubleshooting

Soja	2004	• Top Management Support • detailed schedule • co-operation with supplier • work time schedule • team composition • team involvement • system reliability
Somers and Nelson	2004	• Top Management Support • Project management • User training and Education • Degree of Customization • Business process reengineering • Change Management • Steering Committee • Project team • Interdepartmental communication • Careful selection of appropriate package • Vendor–customer partnership • Data analysis and conversion • Education on new business processes • Vendor support • Interdepartmental cooperation • Clear goals and objectives • Use of consultants
Yusuf et al.	2004	• Top management support • Clear goals and objectives • Reliable IT hardware and infrastructure • Resistance of change to new process (cultural problem) • Inadequately educating the workforce • Inappropriate systems testing and data conversion • Company-wide support • Communication • Training and education • Vendor support
Al-Mashari et al.	2003	• ERP package selection • Communication • Process management (BPR) • Training and education • Project management • Legacy systems management • System integration • System testing

		• Cultural and structural changes
Barker and Frolick	2003	• Employee training • Communication • Management support • Project team competence • Resistance to change • Employee involvement • Employee Recognition and incentive
Bradford and Florin	2003	• Perceived complexity • Top management support • Consensus on organizational objectives • Training • Competitive pressure
Haines and Goodhue	2003	• Consultant Involvement • Knowledge Transfer within the organization
Kumar et al.	2003	• selection of ERP vendor • project manager • implementation partners • constitution of project team • project planning • training • infrastructure development • on-going project management • quality assurance • stabilization of ERP
Mabert et al.	2003	• Clear desired outcomes • Training and education • Minimum modification • Implementation management effort • Executive involvement and support • Technology/infrastructure in place • Minor reengineering efforts
Muscatello et al.	2003	• Executive management commitment • Strategic planning • Project needs assessment • Training programs • Process reengineering • Project planning • Effective communication • Multi-layered project teams
Nah et al.	2003	• Top management support • Project champion

		• ERP teamwork and composition • Project management • Change management culture and program • Effective enterprise-wide communication • Business plan and vision • BPR • Software development, testing and troubleshooting • Monitoring and evaluation of performance • Appropriate business and IT legacy systems
Sarker and Lee	2003	• Strong and committed leadership • Open and honest communication among the stakeholders • Balanced and empowered implementation team
Sebastianelli and Rishel	2003	• Project management • Top management support • Change management program and culture • Business plan and vision • Business process reengineering • Project champion • Employee attitudes • Use of outside consultants
Umble et al.	2003	• clear understanding of strategic goals • Commitment by top management • Project management • Managing change • implementation team • Data accuracy • Education and training • Focused performance measures • System selection process • post-implementation audit
Zhang et al.	2003	• Top management support • Effective project management • Company-wide commitment • Education and training • User involvement • Suitability of software and hardware • Data accuracy • Vendor support
Akkermans and Helden	2002	• Top management support • Project team competence • Interdepartmental co-operation • Clear goals and objectives

		• Project management • Interdepartmental communication • Management of expectations • Project champion • Vendor support • Careful package selection
Allen et al.	2002	• Organizational culture Constructions of past • Technological implementations Political structures
Gattiker	2002	• Top management involvement • Link to business strategy • Software selection • User involvement • User training • Pre-existing data and systems • ERP package standards • Process standards
Hong and Kim	2002	• Data fit • Process fit • User fit • ERP adaptation level • Process adaptation level • Organizational resistance
Mandal and Gunasekaran	2002	• Training and education • BPR • Suitability of hardware and software
Motwani et al.	2002	• Strategic initiatives • Learning capacity • Cultural readiness • IT leveragibility and knowledge-sharing • Network relationships • Change management • Process management
Skok and Legge	2002	• Cultural and Business Change • Managing consultant • Managing conflicts in ERP project • Staff Retention • Planning and control • Project champion • Top management commitment • Team working • User involvement • User acceptance • Hybrid skills

Stratman and Roth	2002	• Strategic IT planning • Executive commitment • Project management • IT skills • Business process skills • ERP training • Learning • Change readiness
Umble and Umble	2002	• Poor planning or poor management • Change in business goals during the project • Lack of business management support
Aladwani	2001	• Top management commitment and support • Communicating ERP benefits • Involving individuals and groups • Hands-on training
Al-Mudimigh et al.	2001	• Top management commitment/ support • Business case • Project management • Change management • Training • Communication • Current legacy system evaluation • Project vision and objective • ERP implementation strategy • Hiring consultants • Client consultation • Business process change • ERP software package selection
Krumbholz and Maiden	2001	• National culture • Organizational culture
Murray and Coffin	2001	• Executive support • Business process re-engineering with minimum customization • Enterprise wide education and training • Project management
Nah et al.	2001	• ERP teamwork and composition • Top management support • Business plan and vision • Effective communication • Project management • Project champion • Appropriate business and legacy systems • Chang management program and culture

		• Business Process Reengineering and minimum customization • Software development, testing and troubleshooting • Monitoring and evaluation of performance
Somers and Nelson	2001	• Top management support • Project team competence • Interdepartmental co-operation • Clear goals and objectives • Project management • Interdepartmental communication • Management of expectations • Project champion • Vendor support • Careful package selection • Data analysis and conversion • Steering committee • User training • Education on new business processes • BPR • Minimal customization • Change management • Vendor partnership • Vendor's tools • Use of consultants
Jarrar et al.	2000	• Change management • IT infrastructure
Rosario	2000	• ERP teamwork and composition • Change management culture and program • Business process re-engineering with minimum customization • Business plan and vision • Project management • Project champion • Communication • Monitoring and evaluation of performance • Software Development, Testing and Troubleshooting
Scheer and Habermann	2000	• Software Development, Testing and Troubleshooting
Shanks et al.	2000	• ERP teamwork and composition • Change management culture and program • Top management support • Business process re-engineering with minimum customization • Business plan and vision

		• Project management • Project champion • Communication
Sumner	2000	• Failure to redesign business processes to fit the software • Lack of senior management support • Insufficient training and re-skilling of IT Workforce • Lack of ability to recruit and retain qualified ERP systems developers • Insufficient training of end-users • Lack of integration • Lack of a proper management structure • Insufficient internal expertise • Lack of a champion • Ineffective communications
Bingi et al.	1999	• Top management commitment • Process reengineering • Integration • ERP Consultants • Vendor support • Training employee • Selecting right employees
Buckhout et al.	1999	• ERP teamwork and composition • Top management support • Business plan and vision
Hirt and Swanson	1999	• Restructuring (re-engineering) • Choice of package software • Alternative implementation approaches • Selection of hardware • Value of consultants
Holland et al.	1999	• Legacy systems • Business vision • ERP strategy • Top management support • Project schedule and plan • Client consultation • Personnel • Business process change and software configuration • Client acceptance • Monitoring and feedback • Communication • Trouble shooting
Stefanou	1999	• Willingness for information

		- sharing - ERP teamwork and composition - Project champion

APPENDIX (B)

List of Success Measures for ERP Systems

Used by Prior Research (1999-2008)

Research	Year	Independent Variable	Dependent Variable
Bernroider	2008	▪ Explicitly defined IT/IS strategy ▪ Top management commitment ▪ Participative form of decision making ▪ Project team is dominated by business management	Success of ERP projects • System Quality • Service quality • Net benefit
Bradley	2008	▪ Project manager ▪ Training of personnel ▪ Presence of a champion	ERP implementation success • Organizational impact • On time project completion • On/under budget project completion
Bueno and Salmeron	2008	▪ Top Management Support ▪ Internal Communication ▪ External Cooperation ▪ Training ▪ Technological complexity ▪ Perceived Usefulness ▪ Perceived Ease of Use ▪ Attitude toward Use	Behavioral intention to use
Chen and Liu	2008	▪ System Quality ▪ User knowledge improvement ▪ Careful selection of suppliers	ERP success • Key-user satisfaction
Häkkinen and Hilmola	2008	▪ User ERP skills ▪ Data reliability ▪ Communication between different organizational levels	ERP systems success • Information Quality • System Quality • Service quality • Net benefit
Hsu et al.	2008	▪ User participation and observability	Successful ERP implementation • User satisfaction • Individual performance • Organizational performance
Ifinedo	2008	▪ Top Management Support ▪ Business vision ▪ External expertise	ERP systems success • System Quality • Information Quality • Individual impact • Organizational impact • Workgroup impact
Kerimoglu	2008	▪ Technology Capability and flexibility	Organizational adoption of ERP systems

et al.		▪ Technology and Organization Gap ▪ Project management Capability ▪ Organization Capability and innovativeness ▪ User Capability, innovativeness and support ▪ Perceived ease of use ▪ Perceived usefulness	• End-user satisfaction
Kwahk and Lee	2008	▪ Readiness for change ▪ Organizational commitment ▪ Perceived personal competence ▪ Computer self-efficacy ▪ Perceived usefulness ▪ Perceived ease of use	ERP Usage intention
Sawah et al.	2008	▪ Top Management Support ▪ Company Wide Support ▪ Organizational fit to ERP ▪ Effective Project Management ▪ Users' Involvement and Training ▪ External Support ▪ Organizational Culture	ERP Implementation Success • Achieving expected strategic business goals • Degree of integration among departments • User satisfaction • Providing necessary functionality • Achieving expected payoff (ROI)
Uzoka et al.	2008	▪ System quality ▪ Information quality ▪ Vendor support quality ▪ Firm size	Behavioral intention to use ERP
Amoako-Gyampah	2007	▪ Intrinsic User involvement ▪ Prior usage of IS ▪ Perceived usefulness ▪ Ease of use	Behavioral intention to use ERP
Basoglu et al.	2007	▪ Perceived ease of use ▪ Perceived usefulness ▪ Project management ▪ User characteristics ▪ Organization characteristics ▪ Technology characteristics	ERP User Satisfaction
Chien et al.	2007	▪ Centralization of decision making ▪ Free flow of information in project team ▪ Connectedness with user	ERP implementation success • Meeting project deadlines • Achieving a specified system performance level • Staying within the expected

		department ■ Temporal pacing ■ Project leader expertise ■ Existence of super ordinate goal ■ Characteristics of organizational incentive structure ■ Unfocused information-seeking	budget • Match between systems and specific planned/objectives • User's attitudes towards ERP • Match user's expectations
Grabski and Leech	2007	■ Project management ■ Change management ■ Alignment of the business with the new system ■ Internal audit activities ■ Consultant and planning activities	Successful ERP implementation • User's believe of success
Ifinedo	2007	■ Firm size ■ Organizational culture ■ Organizational structure ■ IT Assets ■ IT resources	ERP systems success • Vendor/ consultant quality • System Quality • Information Quality • Individual impact • Workgroup Impact • Organizational Impact
Kamhawi	2007	■ Organizational fit ■ Business process reengineering ■ Project planning ■ Ease of use ■ Organizational resistance ■ Top-management support ■ Technical fit ■ Training ■ Competitive pressure ■ Strategic fit	ERP implementation success • Perceived business value • Meeting project time • Achieving the expected level of system performance • Staying within the expected cost
Law and Ngai	2007	■ Management Support ■ Business process improvement	ERP success • ERP user satisfaction
Liang et al.	2007	■ Top management participation ■ Normative pressures	ERP assimilation and usage • Volume; Business processes conducted using ERP • Diversity; Functional areas automated by ERP • Depth; impact of ERP on business activities
Nah et al.	2007	■ Enterprise-Wide	Success of ERP implementation

		communication	• Organizational Improvement
		▪ Project management program	• User Satisfaction
		▪ Organizational culture	
		▪ Top management support	
		▪ Teamwork and Composition	
Ramayah and Lo	2007	▪ Shared beliefs in the benefits of ERP ▪ perceived ease of Use ▪ perceived usefulness	Intention to use ERP system
Ramayah et al.	2007	▪ Top management involvement ▪ Business plans ▪ Vision ▪ Vendor support ▪ Change readiness ▪ Teamwork ▪ Team composition ▪ Communication ▪ Organizational resistance	Successful ERP implementation • User satisfaction • Pre-determined goals
Al-Mashari et al.	2006	▪ ERP teamwork and composition ▪ Top management support ▪ Business plan and vision ▪ Effective communication ▪ Project management ▪ Appropriate business and legacy systems ▪ Software development, testing and troubleshooting ▪ Effective decision-making ▪ Effective training	ERP Implementation Success • Achieving planned objective • Within time and budget • Users' attitudes to ERP • Meeting users' expectation
Fan and Fang	2006	▪ Perceived usefulness ▪ System quality ▪ Information quality	ERP implementation success • System use • User satisfaction • Individual impact • Organizational impact
Ferratt et al.	2006	▪ Project team planning ▪ Top management support ▪ Software selection effort ▪ Training of project team and end-user ▪ Project team composition ▪ Team member participation ▪ Information system area participation ▪ Consultant capability	ERP implementation success • Information-integration capabilities • Information quality • Process and product quality • Business performance • Overall satisfaction with project outcomes

		▪ Consultant support	
Kositanurit et al.	2006	▪ System quality ▪ Ease of use ▪ ERP utilization	ERP implementation success • Individual performance
Kwahk	2006	▪ Organizational commitment ▪ Perceived user competence ▪ Attitude toward change ▪ Perceived usefulness ▪ Perceived ease of use	ERP systems utilization
Peslak	2006	▪ Percent of consultants in overall project team composition ▪ Modifications to the system ▪ Size of the organization	ERP Implementation Success • Project cost (relative to budget) • Project completion time (relative to schedule)
Shih	2006	▪ Computer self-efficacy ▪ Perceived usefulness ▪ Perceived ease of use ▪ Attitude toward use	Actual ERP usage
Soja	2006	▪ Team composition ▪ Co-operation with supplier ▪ Top management awareness ▪ System reliability ▪ Team involvement ▪ IT infrastructure ▪ Detailed schedule ▪ Top management support ▪ Financial budget ▪ Project team empowerment ▪ Project manager ▪ Work time schedule	ERP implementation success • Actual scope of an implementation with respect to the planned implementation • Actual duration with respect to the assumed duration • Financial budget with regard to the planned budget • Users' level of satisfaction with system • Achievement of project goals
Wang and Chen	2006	▪ Measurement uncertainty ▪ System-specific investments ▪ Explicit contract ▪ Reputation of consultancy ▪ Trust in consultant	ERP Project Success • On schedule • Within budget • Degree of expected objectives met
Holsapple et al.	2005	▪ Task relevancy ▪ Compatibility ▪ Education level ▪ Management level ▪ User age ▪ Information experience ▪ Package localization	ERP systems success • ERP user satisfaction
Hwang	2005	▪ Uncertainty avoidance ▪ Perceived Enjoyment	Behavioral Intension to Use ERP

		▪ ERP Ease of Use ▪ ERP Usefulness	
Kim et al.	2005	▪ Human resources and capabilities management ▪ Cross-functional coordination ▪ ERP software configuration and features ▪ System development and project management ▪ Change management ▪ Organizational leadership	Successful ERP Implementation • Overall satisfaction of ERP system • Meeting the overall goals of the organization
Correa and Cruz	2005	▪ Strategic planning of the information technology ▪ Executive commitment ▪ Business process skills ▪ ERP training ▪ Project management ▪ IT skills ▪ Learning ▪ Change readiness	ERP success • System quality • Information quality • Service quality • Net benefits
Sun et al.	2005	▪ Management commitment ▪ Management involvement ▪ Project team ▪ Process redesign ▪ Education and training ▪ Data management ▪ User skills	ERP implementation Success • Cost • Schedule • achievement
Zhang et al.	2005	▪ Top management support ▪ Company-wide support ▪ Business process reengineering ▪ Effective project management ▪ Organizational culture ▪ Education and training ▪ User involvement ▪ User characteristics ▪ ERP software suitability ▪ Information quality ▪ System quality ▪ ERP vendor quality	ERP implementation Success • User satisfaction • Individual impact • Organizational impact • Intended business performance improvement
Amoako-Gyampah and Salam	2004	▪ Project communication ▪ Training ▪ Belief in the benefits of ERP project ▪ Attitude toward ERP system	Behavioral intention to use ERP system

		▪ Perceived usefulness ▪ Perceived Ease of use	
Calisir and Calisir	2004	▪ Perceived usefulness ▪ Learnability ▪ Perceived Ease of use ▪ System capability ▪ User guidance	ERP end-user satisfaction
Lee and Lee	2004	▪ Organization citizenship behavior ▪ User IT capability ▪ Change management effectiveness ▪ IT assets ▪ IS innovation resistance	ERP effectiveness • Information management and use • Information behavior and values
Abdinnour-Helm et al.	2003	▪ Level of user involvement ▪ Training strategy ▪ Job tenure ▪ Job type	ERP implementation attitudes • Expected capability of ERP • Expected value of ERP • Acceptance of ERP implementation • Timing of ERP implementation
Al-Mashari et al.	2003	▪ Management and leadership ▪ Visioning and planning ▪ ERP package selection ▪ Communication ▪ Process management ▪ Training and education ▪ Project management ▪ Legacy system management ▪ System integration ▪ System testing ▪ Cultural and structural change ▪ Performance evaluation and management	ERP Implementation Success • Achieving planned objective • Within time and budget • Users' attitudes to ERP • Meeting users' expectation
Bagchi et al.	2003	▪ Attitude towards the system ▪ Attitude concerning system use ▪ Subjective norm concerning system use ▪ Intention to use system	ERP system usage
Bradford and Florin	2003	▪ Technical compatibility ▪ Perceived complexity ▪ BPR ▪ Top management support ▪ Consensus on organizational	ERP implementation success • User satisfaction • Perceived organizational performance

		objectives ▪ Training ▪ Competitive pressure	
Esteves-Sousa et al.	2003	▪ Project sponsor role ▪ Project manager role	ERP implementation success • Finishing on time • On budget • Obtaining the expected functionality • System is being used by its intended users
Mabert et al.	2003	▪ Developing business case ▪ Clear desired outcomes ▪ Training and education strategies ▪ Minimum modification ▪ Implementation management effort ▪ Executive involvement and support ▪ Technology/infrastructure in place ▪ Benchmarking implementation progress ▪ Minor reengineering efforts ▪ Organizational change strategies ▪ ERP implementation team ▪ Communication of ERP plan ▪ Data conversion and integrity	Successful ERP implementation • On time • Within budget
Umble et al.	2003	▪ Clear understanding of strategic goals ▪ Commitment by top management ▪ Project management ▪ Managing change ▪ implementation team ▪ Data accuracy ▪ Education and training ▪ Focused performance measures ▪ System selection process ▪ Post-implementation audit	ERP Implementation success • Organizational business improvement
Zhang et al.	2003	▪ Top management support ▪ Business process reengineering ▪ Effective project management	ERP implementation success • User satisfaction • ABCD classification

		▪ Company-wide commitment ▪ Education and training ▪ User involvement ▪ Suitability of software and hardware ▪ Data accuracy ▪ Vendor support ▪ Organizational culture	
Hong and Kim	2002	▪ Organizational fit of ERP ▪ ERP adaptation ▪ Process adaptation ▪ Organizational resistance	ERP implementation success • System performance • Schedule overrun • Cost overrun • Expected benefits
Mandal and Gunasekaran	2002	▪ Training and education ▪ BPR ▪ Suitability of hardware and software	ERP implementation Success • Intended business performance improvement • Predetermined corporate goals
Stratman and Roth	2002	▪ Strategic IT planning ▪ Executive commitment ▪ Project management ▪ IT skills ▪ Business process skills ▪ ERP training ▪ Learning ▪ Change readiness	Successful ERP adoption • Improved business performance
Reinhard and Bergamaschi	2001	▪ Upper management support ▪ IT user satisfaction ▪ Clearly and defined missions ▪ Detailed project plan ▪ Project manager with the necessary skills ▪ Implementation of changes in business processes ▪ Company's willingness to change ▪ Capable and committed users ▪ External consultant	ERP implementation success • Time • Cost • System Quality • Business Performance Improvements

APPENDIX (C)

Approval of

Research Questionnaire Set

RE: ERP Survey   Wednesday, March 4, 2009 1:38 AM

From: "Beheshti, Hooshang M" <hbehesht@RADFORD.EDU>
To: "shahin dezdar" <dezdar@yahoo.com>

Dear Shahin,

I read your proposal and it seems you have developed a nice model.

I think you have an easier time and a better chance to collect data from Malaysia.

Good luck in your research,

Dr. Hooshang M. Beheshti
Professor of Management
Radford University
Radford, VA 24142
Phone: 540-831-5380
Fax: 540-831-6261

From: shahin dezdar [mailto:dezdar@yahoo.com]
Sent: Monday, March 02, 2009 6:00 AM
To: mzain@uaeu.ac.ae; gklein@uccs.edu; jjiang@bus.ucf.edu; anicol@bgsu.edu;
sondosselsawah@student.adfa.edu.au; brent.snider@haskayne.ucalgary.ca; jap@unica.edu;
jesteves@lsi.upc.es; Beheshti, Hooshang M; phily@agsm.edu.au
Subject: ERP Survey

 Dear Professor
My name is Shahin Dezdar, and I am a PhD candidate in the Faculty of Business,
University of Malaya in Malaysia. I am conducting thesis research examining the ways in
which organizations implement Enterprise Resource Planning (ERP) systems. The purpose
of this research is to identify critical factors (CSF) associated with ERP implementation
success in the context of a developing country (Iran) in order to help organizations achieve
greater benefits from implementing ERP systems. I am asking for your help. Your inputs
about my "Research Model and Questionnaire" are very much appreciated and of
tremendous importance to my research.
Looking forward,
Shahin Dezdar
PhD candidate (University of Malaya)
Cell # +6-0173597157

RE: ERP Survey   Thursday, February 26, 2009 7:05 PM

From: "Ike Ehie" <iehie@ksu.edu>
To: "'shahin dezdar'" <dezdar@yahoo.com>

Dear Shahin,

Thank you for sending me your questionnaire. You have done very well in framing the research questions and it appears the research design is very thorough.

Since your survey will be conducted in Iran, it would be nice to do a cross-country comparison using your framework. If you will be interested in doing this, let me know and we will pursue it further.

Ike Ehie

From: shahin dezdar [mailto:dezdar@yahoo.com]
Sent: Thursday, February 26, 2009 2:49 AM
To: g.gable@qut.edu.au; h.a.akkermans@tm.tue.nl; hliang@fau.edu; iehie@ksu.edu;
fbaangsk@nus.edu.sg; jkarimi@carbon.cudenver.edu; motwanij@gvsu.edu;
jeff.stratman@mgt.gatech.edu; jhwu@mis.nsysu.edu.tw; jbradley@uidaho.edu; jflorin@bryant.edu;
kwahk@kmu.ac.kr; krnelson@ut.edu; kwasi_amoako@uncg.edu; isweikk@cityu.edu.hk
Subject: ERP Survey

 Dear Professor
My name is Shahin Dezdar, and I am a PhD candidate in the Faculty of Business, University of Malaya in Malaysia. I am conducting thesis research examining the ways in which organizations implement enterprise resource planning (ERP) systems. The purpose of this research is to identify critical factors (CSF) associated with ERP implementation success in the context of a developing country (Iran) in order to help organizations achieve greater benefits from implementing ERP systems. I am asking for your help. Your inputs about my "Research Model and Questionnaire" are very much appreciated and of tremendous importance to my research.
Looking forward,
Shahin Dezdar
PhD candidate (University of Malaya)
Cell # +6-0173597157

RE: ERP Survey   Saturday, February 28, 2009 2:05 AM

From: "Karimi, Jahangir" <Jahangir.Karimi@ucdenver.edu>

To: "shahin dezdar" <dezdar@yahoo.com>

Message contains attachments 1 File (394KB)

- JMIS factor published.pdf
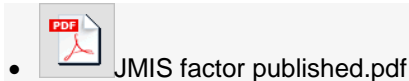
Dear Mr. Dezdar,
This is interesting study and potentially useful for IT managers in Iran. I wish you
success.
I am attaching one of papers in JMIS. I hope you find it useful.
Best wishes,

Jahangir Karimi, PhD.

Accenture Term Professor of Information Systems &
Director of Information Systems Programs
The Business School
University of Colorado Denver
Campus Box165. P.O. Box 173364
Denver Colorado 80217_3364
303 556_5881, 303 556_5899 Fax

From: shahin dezdar [mailto:dezdar@yahoo.com]
Sent: Thursday, February 26, 2009 1:49 AM
To: g.gable@qut.edu.au; h.a.akkermans@tm.tue.nl; hliang@fau.edu; iehie@ksu.edu;
fbaangsk@nus.edu.sg; jkarimi@carbon.cudenver.edu; motwanij@gvsu.edu;
jeff.stratman@mgt.gatech.edu; jhwu@mis.nsysu.edu.tw; jbradley@uidaho.edu; jflorin@bryant.edu;
kwahk@kmu.ac.kr; krnelson@ut.edu; kwasi_amoako@uncg.edu; isweikk@cityu.edu.hk
Subject: ERP Survey
 Dear Professor
My name is Shahin Dezdar, and I am a PhD candidate in the Faculty of Business,
University of Malaya in Malaysia. I am conducting thesis research examining the ways in
which organizations implement enterprise resource planning (ERP) systems. The purpose
of this research is to identify critical factors (CSF) associated with ERP implementation
success in the context of a developing country (Iran) in order to help organizations achieve
greater benefits from implementing ERP systems. I am asking for your help. Your inputs
about my "Research Model and Questionnaire" are very much appreciated and of
tremendous importance to my research.
Looking forward,
Shahin Dezdar
PhD candidate (University of Malaya)

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RE: ERP Survey   Wednesday, March 4, 2009 2:00 PM

From: "Ward, John" <j.m.ward@cranfield.ac.uk>
To: "shahin dezdar" <dezdar@yahoo.com>

Dear Shihan

Well done - you've constructed a very thorough set of questions from the literature - they are well thought out and will enable you to gather very good data.

Good luck with your research.

Best wishes

John

_____

From: shahin dezdar [dezdar@yahoo.com]
Sent: 02 March 2009 11:00
To: mzain@uaeu.ac.ae; gklein@uccs.edu; jjiang@bus.ucf.edu; anicol@bgsu.edu; sondosselsawah@student.adfa.edu.au; brent.snider@haskayne.ucalgary.ca; jap@unica.edu; jesteves@lsi.upc.es; hbehesht@radford.edu; phily@agsm.edu.au
Subject: ERP Survey

Dear Professor

My name is Shahin Dezdar, and I am a PhD candidate in the Faculty of Business, University of Malaya in Malaysia. I am conducting thesis research examining the ways in which organizations implement Enterprise Resource Planning (ERP) systems. The purpose of this research is to identify critical factors (CSF) associated with ERP implementation success in the context of a developing country (Iran) in order to help organizations achieve greater benefits from implementing ERP systems. I am asking for your help. Your inputs about my "Research Model and Questionnaire" are very much appreciated and of tremendous importance to my research.
Looking forward,

Shahin Dezdar
PhD candidate (University of Malaya)
Cell # +6-0173597157

Re: ERP Survey   Thursday, March 26, 2009 4:25 PM

From: "Valerie Botta-Genoulaz" <valerie.botta@insa-lyon.fr>

To: "shahin dezdar" <dezdar@yahoo.com>

Message contains attachments 2 Files (495KB)

- Botta-Genoulaz Millet 2005.pdf   Botta Millet 2006.pdf
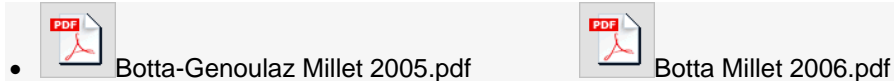
Dear Sir,

Your subject is quite interesting and there has been several research papers dealing with this question. I attach some of our results on this subject.
I read carefully your proposal and questionnaire, which seem quite comprehensive.
But because I am academic, I cannot complete it.
I will be happy to receive news about your findings.

yours sincerely,

Pr. Valérie BOTTA-GENOULAZ
Université de Lyon, INSA-Lyon
Département Génie Industriel, Laboratoire LIESP
Bât Jules Verne, 19 av. J. Capelle, 69621 Villeurbanne cedex, FRANCE
Tel :   +33 (0)4 72 43 60 74
Fax :   +33 (0)4 72 43 85 38
Email : valerie.botta@insa-lyon.fr
http://www.insa-lyon.fr/

shahin dezdar a écrit :

Dear Professor
My name is Shahin Dezdar, and I am a PhD candidate in the Faculty of Business, University of Malaya in Malaysia. I am conducting thesis research examining the ways in which organizations implement Enterprise Resource Planning (ERP) systems. The purpose of this research is to identify critical factors (CSF) associated with ERP implementation success in the context of a developing country (Iran) in order to help organizations achieve greater benefits from implementing ERP systems. I am asking for your help. Your inputs about my "Research Model and Questionnaire" are very much appreciated and of tremendous importance to my research.
Looking forward,
Shahin Dezdar
PhD candidate (University of Malaya)
Cell # +6-0173597157

APPENDIX (D)

Research Questionnaire Set

Faculty of Business and Accountancy

PhD Dissertation Questionnaire

Critical factors Affecting

ERP Implementation Success

<u>PhD Candidate</u>

Shahin Dezdar

<u>Supervisor</u>

Professor Dr. Ainin Sulaiman

January 2009

Dear Respondent

My name is Shahin Dezdar, and I am a PhD candidate in the Faculty of Business and Accountancy, University of Malaya in Malaysia. I am conducting thesis research examining the ways in which organizations implement enterprise resource planning (ERP) systems. The purpose of this research is to identify the critical factors (CSFs) associated with ERP implementation success in order to help organizations to achieve greater benefits from implementing ERP systems. Your organization has agreed to participate in this research study. Now I am asking for your help. Your inputs are very much appreciated and of tremendous importance to my research.

The enclosed survey asks for your opinions regarding the implementation of ERP systems, and will take about thirty minutes to complete. Your participation in completing and returning this survey will be greatly appreciated. Your survey responses will be combined and reported in aggregate form only, so that your confidentiality will be completely protected. If there is any question or concern about the survey, please feel free to call me at +98-09123865092, or e-mail me at dezdar@yahoo.com.

Thank you for your time and consideration
Sincerely,
Shahin Dezdar, PhD candidate

UNIVERSITI MALAYA
KUALA LUMPUR

يونيۏرسيتي ملايا

12 January 2009

Dear Sir / Madam,

Re: Application for Assistance for Data Collection

This is to certify that Shahin Dezdar, Matric No. CHA070015, I/C No. D11430895 is a Doctoral Programme candidate at the Faculty of Business and Accountancy, University of Malaya. As part of the programme he is required to conduct a research entitled, "Critical Factor Affecting ERP Implementation Success" under the supervision of Professor Dr. Ainin Sulaiman.

We would appreciate if you could provide him with the necessary assistance and cooperation to enable him to collect the data required for the above purpose.

Thank you.

Yours sincerely,

ZURINA SHAIK OSMAN
Senior Assistant Registrar
For Dean, Faculty of Business & Accountancy

صحت صدور و تعلق این مکتوب به گواهی
اقای ــــــ تصدیق میگردد
شماره: ١٧٤٤ تاریخ: ١٤ ٢٠

سید حمید نور – دبیر اول
S.H. Nour - First Secretary

FACULTY OF BUSINESS & ACCOUNTANCY
University of Malaya, 50603 Kuala Lumpur, Malaysia
Tel: (603) 7967 3974 / 7967 3975 • Faks: (603) 7967 3810 • E-mail: fpp@um.edu.my • www.um.edu.my/fpp

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Part (A): Demographic Data

1.1. Please indicate your gender :

Male	Female

1.2. Please indicate your age:

Below 30	31-40	41-50	Above 50

1.3. Please indicate your level of education:

Undergraduate	Graduate	Postgraduate (MS)	Postgraduate (PhD)

1.4. How long have you been working in this company?

Less than 1 year	2-5 years	6-10 years	More than 10 years

1.5. Were you involved in the ERP implementation in your company?

Yes (fully)	Yes (partly)	No

1.6. Which module of ERP do you use?

Manufacturing and Logistics	Finance	Human Resources	Others (please specify)

1.7. How long have you been using the ERP system?

About 1 years	2 years	3 years	More than 3 years

1.8. How often do you use the ERP system?

About once a day	Several times a day	About once a week	Several times a week

Part (B): ERP Implementation Success

Please indicate the extent to which you agree with the following statements by marking an "X" against the appropriate scale shown.

Enterprise-Wide Communication	Strongly Disagree	Moderately Disagree	Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree
There was effective communication between project team members and Users in the ERP implementation project.								
There was effective communication among functional departments in the ERP implementation project.								
There was not effective communication to get the users' requirements and comments for the ERP implementation project.								
There were enough communication channels (presentations, newsletter, etc.) to inform users about the objectives of the ERP project.								
The ERP project's progress was communicated among stakeholders as the implementation took place.								
All stakeholders and team members willingly kept each other informed in the ERP implementation project.								

Business Processes Reengineering	Strongly Disagree	Moderately Disagree	Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree
Our firm tried to rely heavily on reengineering its business processes to fit ERP systems.								
Our firm initially identified and documented existing business processes.								
Our firm analyzed and integrated redundant and inconsistent organizational processes.								
Our firm modified existing processes to the extent possible to align with the ERP.								
Our firm developed new organizational processes to align with the ERP.								

Project Management	Strongly Disagree	Moderately Disagree	Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree
The ERP project scope was clearly established.								
A detailed project plan (i.e., what activities to cover at what stage) with measurable results was provided.								
The responsibility for all parts of the ERP implementation project was assigned.								
The project activities across all affected parties were coordinated properly.								

There was not a formal management process to monitor the ERP vendor activities.								
The ERP project progress was reviewed on a periodic basis.								

Team Composition and Competence	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree
The project had a well experienced project manager who was dedicated to the ERP implementation project.							
A variety of cross-functional team members were selected for the ERP implementation.							
The people selected for ERP implementation teams had the best business and technical knowledge.							
The ERP implementation team was empowered to make decisions relating to the project.							
The ERP implementation team was not working on the project full-time as their only priority.							

ERP System Quality	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree
The ERP system provides dependable and consistent information.							
The ERP system has the ability to communicate data with other systems servicing different functional areas.							
The ERP system has enough flexibility to adapt to new conditions, processes, or organization structures.							
The ERP system has good features and functions for doing my job.							
The ERP system is easy to use.							

ERP Vendor Support	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree
The ERP vendor communicated well with our organization.							
The ERP vendor personnel had enough experience for implementing.							
The ERP vendor provided quality services.							
The ERP vendor services were not performed in an adequate response time.							
The training offered by the ERP vendor was adequate to increase the user's proficiency in ERP usage.							
The ERP vendor provided suitable formal documents (user manual, operation guide, etc.) required for using the ERP system.							

Organizational Culture	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree
In my organization, employees are encouraged to analyze mistakes and learn from them.							
In my organization, each day brings new challenges.							
In my organization, employees are encouraged to express their opinions and ideas regarding work.							
In my organization, management freely shares information.							
In my organization, people are supportive and helpful.							
In my organization, there is willingness to collaborate across organizational units.							

ERP User Satisfaction	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree
ERP system provides outputs which I need.							
ERP system provides precise information.							
ERP system presents reports in a useful format.							
The output information content provided by the ERP system is comprehensive.							
The information provided by the ERP system is up to date.							
ERP system improves my work efficiency.							
Overall, there is a satisfaction with the ERP system.							

ERP Organizational Impact	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree
ERP system has enhanced the quality of decision making.							
ERP system has improved organizational-wide communication between departments.							
ERP system has rationalized business processes.							
ERP system has increased customer satisfaction.							
ERP system has reduced organizational cost.							
ERP system has improved the managerial efficiency.							
ERP system has improved the overall business productivity.							

Dear Respondent, thank you very much for spending your time participating in this survey. Please kindly check to make sure that you have not skipped any questions. Then, please write below your comments on any aspects of the questionnaire items and the ERP implementation project in your organization:

APPENDIX (E)

Data Analysis Outputs

Reliability Assessment of Variables

(Cronbach's α)

Scale: Enterprise-Wide Communication

```
RELIABILITY
  /VARIABLES=W1 W2 W3 W4 W5 W6
  /SCALE ('ALL VARIABLES') ALL
  /MODEL=ALPHA.
```

Case Processing Summary

		N	%
Cases	Valid	384	100.0
	Excluded[a]	0	.0
	Total	384	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.784	6

Scale: Business Processes Reengineering

```
RELIABILITY
  /VARIABLES=B1 B2 B3 B4 B5
  /SCALE ('ALL VARIABLES') ALL
  /MODEL=ALPHA.
```

Case Processing Summary

		N	%
Cases	Valid	384	100.0
	Excluded[a]	0	.0
	Total	384	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.775	5

Scale: Project Management

```
RELIABILITY
  /VARIABLES=P1 P2 P3 P4 P5 P6 P7
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA.
```

Case Processing Summary

		N	%
Cases	Valid	384	100.0
	Excluded[a]	0	.0
	Total	384	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.878	6

Scale: Team Composition and Competence

```
RELIABILITY
  /VARIABLES=T1 T2 T3 T4 T5
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA.
```

Case Processing Summary

		N	%
Cases	Valid	384	100.0
	Excluded[a]	0	.0
	Total	384	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.835	5

Scale: ERP System Quality

```
RELIABILITY
  /VARIABLES=Q1 Q2 Q3 Q4 Q5
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA.
```

Case Processing Summary

		N	%
Cases	Valid	384	100.0
	Excluded[a]	0	.0
	Total	384	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.803	5

Scale: ERP Vendor Support

```
RELIABILITY
  /VARIABLES=V1 V2 V3 V4 V5 V6
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA.
```

Case Processing Summary

		N	%
Cases	Valid	384	100.0
	Excluded[a]	0	.0
	Total	384	100.0

a. Listwise deletion based on all variables in the
procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.898	6

Scale: Organizational Culture

```
RELIABILITY
  /VARIABLES=C1 C2 C3 C4 C5 C6
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA.
```

Case Processing Summary

		N	%
Cases	Valid	384	100.0
	Excluded[a]	0	.0
	Total	384	100.0

a. Listwise deletion based on all variables in the
procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.807	6

Scale: ERP User Satisfaction

```
RELIABILITY
  /VARIABLES=S1 S2 S3 S4 S5 S6 S7
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA.
```

Case Processing Summary

		N	%
Cases	Valid	384	100.0
	Excluded[a]	0	.0
	Total	384	100.0

a. Listwise deletion based on all variables in the

procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.897	7

Scale: ERP Organizational Impact

```
RELIABILITY
  /VARIABLES=S8 S9 S10 S11 S12 S13 S14
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA.
```

Case Processing Summary

		N	%
Cases	Valid	384	100.0
	Excluded[a]	0	.0
	Total	384	100.0

a. Listwise deletion based on all variables in the

procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.901	7

Measurement Model

Factor: Enterprise-Wide Communication

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	12	78.902	9	.000	8.767
Saturated model	21	.000	0		
Independence model	6	1497.643	15	.000	99.843

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.129	.935	.848	.401
Saturated model	.000	1.000		
Independence model	1.892	.327	.058	.234

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.947	.912	.953	.921	.953
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.600	.568	.572
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	69.902	45.170	102.107
Saturated model	.000	.000	.000
Independence model	1482.643	1359.293	1613.360

FMIN

Model	FMIN	F0	LO 90	HI 90

Model	FMIN	F0	LO 90	HI 90
Default model	.206	.183	.118	.267
Saturated model	.000	.000	.000	.000
Independence model	3.910	3.871	3.549	4.212

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.142	.114	.172	.000
Independence model	.508	.486	.530	.000

Estimates (Group number 1 - Default model)

Scalar Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
W2 <--- EWC	1.000				
W3 <--- EWC	1.067	.060	17.848	***	
W4 <--- EWC	.954	.061	15.714	***	
W5 <--- EWC	1.016	.059	17.101	***	
W1 <--- EWC	1.136	.062	18.285	***	
W6 <--- EWC	.994	.061	16.222	***	

Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
W2 <--- EWC	.788
W3 <--- EWC	.832
W4 <--- EWC	.752
W5 <--- EWC	.804
W1 <--- EWC	.848
W6 <--- EWC	.771

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
EWC	2.110	.235	8.997	***	
e2	1.289	.110	11.750	***	
e3	1.070	.098	10.958	***	
e4	1.480	.121	12.188	***	
e5	1.189	.103	11.498	***	

	Estimate	S.E.	C.R.	P	Label
e1	1.063	.101	10.554	***	
e6	1.420	.119	11.971	***	

Measurement Model

Factor: Enterprise-Wide Communication (Revised Model)

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	10	14.004	5	.016	2.801
Saturated model	15	.000	0		
Independence model	5	1142.060	10	.000	114.206

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.060	.986	.957	.329
Saturated model	.000	1.000		
Independence model	1.845	.374	.061	.249

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.988	.975	.992	.984	.992
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.500	.494	.496
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	9.004	1.424	24.182
Saturated model	.000	.000	.000
Independence model	1132.060	1024.780	1246.720

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	.037	.024	.004	.063
Saturated model	.000	.000	.000	.000
Independence model	2.982	2.956	2.676	3.255

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.069	.027	.112	.196
Independence model	.544	.517	.571	.000

Estimates (Group number 1 - Default model)

Scalar Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
W1 <--- EWC	1.000				
W2 <--- EWC	.825	.049	16.934	***	par_1
W3 <--- EWC	.944	.046	20.405	***	par_2
W4 <--- EWC	.829	.049	17.051	***	par_3
W5 <--- EWC	.894	.046	19.243	***	par_4

Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
W1 <--- EWC	.858
W2 <--- EWC	.747
W3 <--- EWC	.846
W4 <--- EWC	.751
W5 <--- EWC	.814

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
EWC	2.790	.274	10.193	***	par_5
e11	.996	.102	9.745	***	par_6
e12	1.500	.125	12.021	***	par_7
e13	.986	.097	10.153	***	par_8
e14	1.483	.124	11.981	***	par_9
e15	1.135	.103	10.984	***	par_10

Measurement Model

Factor: Business Process Reengineering

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	10	8.185	5	.046	1.637
Saturated model	15	.000	0		
Independence model	5	1307.904	10	.000	130.790

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.042	.992	.975	.331
Saturated model	.000	1.000		
Independence model	2.064	.343	.014	.229

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.994	.987	.998	.995	.998
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.500	.497	.499
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	3.185	.000	15.205
Saturated model	.000	.000	.000
Independence model	1297.904	1182.805	1420.376

FMIN

Model	FMIN	F0	LO 90	HI 90

Model	FMIN	F0	LO 90	HI 90
Default model	.021	.008	.000	.040
Saturated model	.000	.000	.000	.000
Independence model	3.415	3.389	3.088	3.709

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.041	.000	.089	.556
Independence model	.582	.556	.609	.000

Estimates (Group number 1 - Default model)

Scalar Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
B1 <--- BPR	1.000				
B2 <--- BPR	.967	.048	20.315	***	
B3 <--- BPR	.916	.046	20.009	***	
B5 <--- BPR	.973	.050	19.361	***	
B4 <--- BPR	.939	.049	19.021	***	

Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
B1 <--- BPR	.843
B2 <--- BPR	.846
B3 <--- BPR	.838
B5 <--- BPR	.820
B4 <--- BPR	.811

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
BPR	2.747	.275	9.987	***	
e7	1.115	.104	10.743	***	
e8	1.018	.095	10.664	***	
e9	.976	.090	10.874	***	
e11	1.261	.112	11.260	***	
e10	1.261	.110	11.436	***	

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Measurement Model

Factor: Project Management

</div>

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	12	33.070	9	.000	3.674
Saturated model	21	.000	0		
Independence model	6	1758.348	15	.000	117.223

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.070	.971	.932	.416
Saturated model	.000	1.000		
Independence model	2.056	.291	.008	.208

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.981	.969	.986	.977	.986
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.600	.589	.592
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	24.070	10.129	45.580
Saturated model	.000	.000	.000
Independence model	1743.348	1609.330	1884.723

FMIN

Model	FMIN	F0	LO 90	HI 90

Model	FMIN	F0	LO 90	HI 90
Default model	.086	.063	.026	.119
Saturated model	.000	.000	.000	.000
Independence model	4.591	4.552	4.202	4.921

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.084	.054	.115	.032
Independence model	.551	.529	.573	.000

Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
P1 <--- PRM	1.000				
P2 <--- PRM	1.046	.052	19.933	***	
P5 <--- PRM	.994	.055	18.163	***	
P6 <--- PRM	1.080	.054	19.892	***	
P3 <--- PRM	1.062	.056	18.946	***	
P4 <--- PRM	.993	.050	19.704	***	

Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
P1 <--- PRM	.813
P2 <--- PRM	.858
P5 <--- PRM	.804
P6 <--- PRM	.856
P3 <--- PRM	.828
P4 <--- PRM	.851

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
PRM	2.295	.241	9.510	***	
e13	1.176	.099	11.896	***	
e14	.902	.082	11.058	***	
e17	1.238	.103	12.019	***	
e18	.973	.088	11.087	***	
e15	1.185	.102	11.661	***	
e16	.862	.077	11.217	***	

Measurement Model

Factor: Project Management (Revised Model)

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	10	10.806	5	.055	2.161
Saturated model	15	.000	0		
Independence model	5	1389.423	10	.000	138.942

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.043	.989	.968	.330
Saturated model	.000	1.000		
Independence model	2.017	.332	-.002	.222

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.992	.984	.996	.992	.996
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.500	.496	.498
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	5.806	.000	19.373
Saturated model	.000	.000	.000
Independence model	1379.423	1260.660	1505.551

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	.028	.015	.000	.051
Saturated model	.000	.000	.000	.000
Independence model	3.628	3.602	3.292	3.931

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.055	.000	.101	.364
Independence model	.600	.574	.627	.000

Estimates (Group number 1 - Default model)

Scalar Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
P1 <--- PRM	1.000				
P2 <--- PRM	1.018	.052	19.597	***	
P6 <--- PRM	1.082	.053	20.401	***	
P3 <--- PRM	1.061	.055	19.339	***	
P4 <--- PRM	.968	.050	19.423	***	

Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
P1 <--- PRM	.822
P2 <--- PRM	.844
P6 <--- PRM	.867
P3 <--- PRM	.836
P4 <--- PRM	.839

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
PRM	2.345	.244	9.627	***	
e13	1.125	.098	11.437	***	
e14	.981	.089	10.975	***	
e18	.904	.088	10.317	***	
e15	1.134	.102	11.149	***	
e16	.925	.083	11.094	***	

Measurement Model

Factor: Team Composition and Competence

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	10	7.986	5	.157	1.597
Saturated model	15	.000	0		
Independence model	5	1258.988	10	.000	125.899

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.038	.992	.976	.331
Saturated model	.000	1.000		
Independence model	1.871	.350	.025	.233

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.994	.987	.998	.995	.998
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.500	.497	.499
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	2.986	.000	14.878
Saturated model	.000	.000	.000
Independence model	1248.988	1136.139	1369.210

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	.021	.008	.000	.039
Saturated model	.000	.000	.000	.000
Independence model	3.287	3.261	2.966	3.575

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.039	.000	.088	.572
Independence model	.571	.545	.598	.000

Estimates (Group number 1 - Default model)

Scalar Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
T3 <--- TCC	.960	.050	19.021	***	
T2 <--- TCC	.984	.051	19.316	***	
T4 <--- TCC	.979	.050	19.456	***	
T5 <--- TCC	.990	.052	18.906	***	
T1 <--- TCC	1.000				

Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
T3 <--- TCC	.818
T2 <--- TCC	.826
T4 <--- TCC	.830
T5 <--- TCC	.814
T1 <--- TCC	.839

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
TCC	2.372	.240	9.889	***	
e21	1.068	.097	10.993	***	
e22	1.083	.097	11.172	***	
e24	1.180	.105	11.237	***	
e20	.995	.093	10.680	***	
e23	1.025	.094	10.903	***	

<p style="text-align:center">Measurement Model</p>

<p style="text-align:center">Factor: System Quality</p>

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	10	10.806	5	.055	2.161
Saturated model	15	.000	0		
Independence model	5	1389.423	10	.000	138.942

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.043	.989	.968	.330
Saturated model	.000	1.000		
Independence model	2.017	.332	-.002	.222

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.992	.984	.996	.992	.996
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.500	.496	.498
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	5.806	.000	19.373
Saturated model	.000	.000	.000
Independence model	1379.423	1260.660	1505.551

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	.028	.015	.000	.051
Saturated model	.000	.000	.000	.000
Independence model	3.628	3.602	3.292	3.931

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.055	.000	.101	.364
Independence model	.600	.574	.627	.000

Estimates (Group number 1 - Default model)

Scalar Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
Q2 <--- SYQ	1.018	.052	19.597	***	
Q3 <--- SYQ	1.061	.055	19.339	***	
Q5 <--- SYQ	1.082	.053	20.401	***	
Q1 <--- SYQ	1.000				
Q4 <--- SYQ	.968	.050	19.423	***	

Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
Q2 <--- SYQ	.844
Q3 <--- SYQ	.836
Q5 <--- SYQ	.867
Q1 <--- SYQ	.822
Q4 <--- SYQ	.839

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
SYQ	2.345	.244	9.627	***	
e27	.981	.089	10.975	***	
e28	1.134	.102	11.149	***	
e30	.904	.088	10.317	***	
e26	1.125	.098	11.437	***	
e29	.925	.083	11.094	***	

<p style="text-align:center;">Measurement Model</p>

<p style="text-align:center;">Factor: Vendor Support</p>

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	12	12.280	9	.008	1.364
Saturated model	21	.000	0		
Independence model	6	1662.728	15	.000	110.849

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.040	.989	.975	.424
Saturated model	.000	1.000		
Independence model	1.882	.298	.018	.213

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.993	.988	.998	.997	.998
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.600	.596	.599
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	3.280	.000	16.660
Saturated model	.000	.000	.000
Independence model	1647.728	1517.521	1785.292

FMIN

Model	FMIN	F0	LO 90	HI 90

Model	FMIN	F0	LO 90	HI 90
Default model	.032	.009	.000	.043
Saturated model	.000	.000	.000	.000
Independence model	4.341	4.302	3.962	4.661

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.031	.000	.070	.753
Independence model	.536	.514	.557	.000

Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
V2 <--- VES	.922	.049	18.621	***	
V3 <--- VES	.954	.048	19.712	***	
V4 <--- VES	.941	.049	19.297	***	
V5 <--- VES	.965	.048	20.162	***	
V1 <--- VES	1.000				
V6 <--- VES	.946	.048	19.894	***	

Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
V2 <--- VES	.801
V3 <--- VES	.832
V4 <--- VES	.820
V5 <--- VES	.844
V1 <--- VES	.834
V6 <--- VES	.837

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
VES	2.442	.248	9.864	***	
e33	1.156	.097	11.928	***	
e34	.989	.086	11.439	***	
e35	1.051	.090	11.642	***	
e36	.918	.082	11.191	***	
e32	1.071	.094	11.403	***	
e37	.936	.083	11.343	***	

Measurement Model

Factor: Organizational Culture

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	12	24.934	9	.003	2.770
Saturated model	21	.000	0		
Independence model	6	1462.312	15	.000	97.487

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.067	.978	.948	.419
Saturated model	.000	1.000		
Independence model	1.747	.330	.062	.236

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.983	.972	.989	.982	.989
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.600	.590	.593
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	15.934	4.716	34.783
Saturated model	.000	.000	.000
Independence model	1447.312	1325.479	1576.515

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	.065	.042	.012	.091
Saturated model	.000	.000	.000	.000
Independence model	3.818	3.779	3.461	4.116

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.068	.037	.100	.153
Independence model	.502	.480	.524	.000

Estimates (Group number 1 - Default model)

Scalar Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
C6 <--- ORC	1.081	.060	18.086	***	
C1 <--- ORC	1.000				
C3 <--- ORC	.798	.056	14.313	***	
C4 <--- ORC	.887	.058	15.197	***	
C5 <--- ORC	1.130	.061	18.390	***	
C2 <--- ORC	1.113	.061	18.392	***	

Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
C6 <--- ORC	.846
C1 <--- ORC	.781
C3 <--- ORC	.699
C4 <--- ORC	.735
C5 <--- ORC	.857
C2 <--- ORC	.857

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
ORC	2.038	.229	8.899	***	
e40	1.362	.107	12.703	***	
e42	.939	.090	10.478	***	
e39	.911	.087	10.477	***	

	Estimate	S.E.	C.R.	P	Label
e38	1.304	.109	11.964	***	
e41	1.367	.110	12.439	***	
e43	.948	.088	10.794	***	

Measurement Model

Factor: User Satisfaction

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	14	58.294	14	.000	4.164
Saturated model	28	.000	0		
Independence model	7	1924.409	21	.000	91.639

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.084	.959	.918	.479
Saturated model	.000	1.000		
Independence model	1.939	.277	.036	.208

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.970	.955	.977	.965	.977
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.667	.646	.651
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	44.294	24.404	71.739
Saturated model	.000	.000	.000
Independence model	1903.409	1763.118	2051.050

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	.152	.116	.064	.187
Saturated model	.000	.000	.000	.000
Independence model	5.025	4.970	4.603	5.355

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.091	.067	.116	.003
Independence model	.486	.468	.505	.000

Estimates (Group number 1 - Default model)

Scalar Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
S1 <--- UST	1.000				
S5 <--- UST	.929	.046	19.997	***	par_1
S6 <--- UST	.877	.047	18.742	***	par_2
S4 <--- UST	.895	.049	18.414	***	par_3
S7 <--- UST	.988	.049	20.078	***	par_4
S3 <--- UST	.883	.047	18.670	***	par_5
S2 <--- UST	.916	.049	18.760	***	par_6

Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
S1 <--- UST	.842
S5 <--- UST	.830
S6 <--- UST	.797
S4 <--- UST	.787
S7 <--- UST	.832
S3 <--- UST	.795
S2 <--- UST	.797

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
UST	2.599	.259	10.023	***	par_7

	Estimate	S.E.	C.R.	P	Label
e46	1.071	.094	11.354	***	par_8
e47	1.253	.104	12.061	***	par_9
e48	1.182	.098	12.092	***	par_10
e50	1.013	.088	11.570	***	par_11
e51	1.151	.095	12.067	***	par_12
e49	1.275	.105	12.175	***	par_13
e52	1.125	.098	11.533	***	par_14

Measurement Model

Factor: User Satisfaction (Revised Model)

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	12	25.668	9	.002	2.852
Saturated model	21	.000	0		
Independence model	6	1506.760	15	.000	100.451

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.064	.978	.950	.419
Saturated model	.000	1.000		
Independence model	1.852	.318	.045	.227

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.983	.972	.989	.981	.989
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.600	.590	.593
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	16.668	5.184	35.775
Saturated model	.000	.000	.000
Independence model	1491.760	1368.019	1622.864

FMIN

Model	FMIN	F0	LO 90	HI 90

Model	FMIN	F0	LO 90	HI 90
Default model	.067	.044	.014	.093
Saturated model	.000	.000	.000	.000
Independence model	3.934	3.895	3.572	4.237

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.070	.039	.102	.135
Independence model	.510	.488	.531	.000

Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
S1 <--- UST	1.000				
S5 <--- UST	.948	.051	18.727	***	par_1
S6 <--- UST	.905	.050	17.961	***	par_2
S4 <--- UST	.919	.052	17.566	***	par_3
S3 <--- UST	.923	.051	18.232	***	par_4
S2 <--- UST	.959	.052	18.326	***	par_5

Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
S1 <--- UST	.820
S5 <--- UST	.825
S6 <--- UST	.801
S4 <--- UST	.788
S3 <--- UST	.809
S2 <--- UST	.812

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
UST	2.465	.258	9.558	***	par_6
e46	1.205	.107	11.314	***	par_7
e47	1.170	.102	11.451	***	par_8
e48	1.108	.096	11.502	***	par_9
e50	1.043	.093	11.217	***	par_10
e51	1.131	.097	11.641	***	par_11
e49	1.273	.108	11.824	***	par_12

Measurement Model

Factor: Organizational Impact

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	14	28.594	14	.012	2.042
Saturated model	28	.000	0		
Independence model	7	2238.774	21	.000	106.608

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.052	.980	.959	.490
Saturated model	.000	1.000		
Independence model	2.121	.249	-.002	.187

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.987	.981	.993	.990	.993
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.667	.658	.662
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	14.594	3.031	33.903
Saturated model	.000	.000	.000
Independence model	2217.774	2066.099	2376.784

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	.075	.038	.008	.089
Saturated model	.000	.000	.000	.000
Independence model	5.845	5.791	5.395	6.206

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.052	.024	.080	.410
Independence model	.525	.507	.544	.000

Estimates (Group number 1 - Default model)

Scalar Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
S8 <--- ORI	1.000				
S10 <--- ORI	.976	.046	21.148	***	par_1
S9 <--- ORI	1.039	.049	21.072	***	par_2
S11 <--- ORI	.972	.049	19.905	***	par_3
S12 <--- ORI	.980	.048	20.348	***	par_4
S13 <--- ORI	.946	.046	20.384	***	par_5
S14 <--- ORI	.983	.045	21.711	***	par_6

Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
S8 <--- ORI	.841
S10 <--- ORI	.852
S9 <--- ORI	.850
S11 <--- ORI	.821
S12 <--- ORI	.832
S13 <--- ORI	.833
S14 <--- ORI	.865

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
ORI	2.521	.250	10.069	***	par_7

	Estimate	S.E.	C.R.	P	Label
e54	1.044	.089	11.720	***	par_8
e56	1.150	.095	12.159	***	par_9
e57	1.074	.089	12.007	***	par_10
e53	1.043	.088	11.876	***	par_11
e55	.906	.078	11.686	***	par_12
e59	.819	.072	11.415	***	par_13
e58	.994	.083	11.994	***	par_14

Discriminant Validity (First-Order Factor)

User Satisfaction and Organizational Impact

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	27	171.382	64	.000	2.678
Saturated model	91	.000	0		
Independence model	13	4490.000	78	.000	57.564

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.072	.943	.919	.663
Saturated model	.000	1.000		
Independence model	2.121	.155	.015	.133

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.962	.953	.976	.970	.976
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.821	.789	.801
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	107.382	72.316	150.115
Saturated model	.000	.000	.000
Independence model	4412.000	4196.057	4635.187

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	.447	.280	.189	.392
Saturated model	.000	.000	.000	.000
Independence model	11.723	11.520	10.956	12.102

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.066	.054	.078	.013
Independence model	.384	.375	.394	.000

Estimates (Group number 1 - Default model)

Scalar Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
S8 <---ORI	1.000				
S9 <---ORI	1.052	.050	21.091	***	
S10<---ORI	.989	.047	21.199	***	
S11<---ORI	.995	.049	20.269	***	
S12<---ORI	.975	.049	19.788	***	
S13<---ORI	.947	.047	20.009	***	
S1 <---UST	1.000				
S2 <---UST	.929	.049	19.055	***	
S3 <---UST	.902	.047	19.199	***	
S4 <---UST	.899	.049	18.440	***	
S5 <---UST	.937	.047	20.128	***	
S6 <---UST	.889	.047	19.021	***	
S14<---ORI	.955	.047	20.499	***	

Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
S8 <--- ORI	.832
S9 <--- ORI	.852
S10 <--- ORI	.855
S11 <--- ORI	.832
S12 <--- ORI	.819
S13 <--- ORI	.825

	Estimate
S1 <--- UST	.834
S2 <--- UST	.801
S3 <--- UST	.804
S4 <--- UST	.783
S5 <--- UST	.829
S6 <--- UST	.800
S14 <--- ORI	.838

Discriminant Validity (Second-Order Factor)

ERP Implementation Success

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	27	171.382	64	.000	2.678
Saturated model	91	.000	0		
Independence model	13	4490.000	78	.000	57.564

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.072	.943	.919	.663
Saturated model	.000	1.000		
Independence model	2.121	.155	.015	.133

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.962	.953	.976	.970	.976
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.821	.789	.801
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	107.382	72.316	150.115
Saturated model	.000	.000	.000
Independence model	4412.000	4196.057	4635.187

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	.447	.280	.189	.392
Saturated model	.000	.000	.000	.000
Independence model	11.723	11.520	10.956	12.102

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.066	.054	.078	.013
Independence model	.384	.375	.394	.000

Estimates (Group number 1 - Default model)

Scalar Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
UST	<---	SUC	1.000				
ORI	<---	SUC	2.472	.217	11.371	***	
S8	<---	ORI	1.000				
S9	<---	ORI	1.052	.050	21.091	***	
S10	<---	ORI	.989	.047	21.199	***	
S12	<---	ORI	.975	.049	19.788	***	
S13	<---	ORI	.947	.047	20.009	***	
S1	<---	UST	1.000				
S2	<---	UST	.929	.049	19.055	***	
S3	<---	UST	.902	.047	19.199	***	
S4	<---	UST	.899	.049	18.440	***	
S5	<---	UST	.937	.047	20.128	***	
S6	<---	UST	.889	.047	19.021	***	
S11	<---	ORI	.995	.049	20.269	***	
S14	<---	ORI	.955	.047	20.499	***	

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
UST	<---	SUC	.626
ORI	<---	SUC	1.573
S8	<---	ORI	.832
S9	<---	ORI	.852

			Estimate
S10	<---	ORI	.855
S12	<---	ORI	.819
S13	<---	ORI	.825
S1	<---	UST	.834
S2	<---	UST	.801
S3	<---	UST	.804
S4	<---	UST	.783
S5	<---	UST	.829
S6	<---	UST	.800
S11	<---	ORI	.832
S14	<---	ORI	.838

Confirmatory Factor Analysis (CFA)

ERP Implementation Success

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	109	2342.971	881	.000	2.659
Saturated model	990	.000	0		
Independence model	44	19060.025	946	.000	20.148

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.095	.786	.759	.699
Saturated model	.000	1.000		
Independence model	2.206	.051	.007	.049

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.877	.868	.920	.913	.919
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.931	.817	.856
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	1461.971	1322.248	1609.309
Saturated model	.000	.000	.000
Independence model	18114.025	17668.725	18565.712

FMIN

Model	FMIN	F0	LO 90	HI 90

Model	FMIN	F0	LO 90	HI 90
Default model	6.117	3.817	3.452	4.202
Saturated model	.000	.000	.000	.000
Independence model	49.765	47.295	46.132	48.474

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.066	.063	.069	.000
Independence model	.224	.221	.226	.000

Estimates (Group number 1 - Default model)

Scalar Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
W1 <--- EWC	1.000				
W2 <--- EWC	.906	.049	18.415	***	
W3 <--- EWC	.971	.048	20.124	***	
W4 <--- EWC	.864	.050	17.186	***	
W5 <--- EWC	.935	.048	19.467	***	
B5 <--- BPR	1.000				
B3 <--- BPR	.945	.049	19.470	***	
B2 <--- BPR	1.007	.050	19.996	***	
B1 <--- BPR	1.023	.053	19.394	***	
P1 <--- PRM	1.000				
P2 <--- PRM	1.002	.050	19.894	***	
P6 <--- PRM	1.069	.051	20.877	***	
T5 <--- TCC	1.022	.052	19.734	***	
T2 <--- TCC	.999	.051	19.682	***	
T1 <--- TCC	1.000				
Q1 <--- SYQ	1.000				
Q3 <--- SYQ	1.209	.064	19.015	***	
Q5 <--- SYQ	1.248	.067	18.689	***	
V5 <--- VES	.960	.047	20.276	***	
V4 <--- VES	.966	.047	20.363	***	
V3 <--- VES	.946	.048	19.732	***	
V2 <--- VES	.941	.048	19.461	***	
V1 <--- VES	1.000				
S8 <--- SUC	1.000				

	Estimate	S.E.	C.R.	P	Label
S9 <--- SUC	1.066	.053	20.301	***	
S10 <--- SUC	1.002	.049	20.375	***	
S12 <--- SUC	.987	.052	19.114	***	
S13 <--- SUC	.963	.050	19.428	***	
B4 <--- BPR	1.012	.051	19.764	***	
P4 <--- PRM	.980	.048	20.584	***	
T4 <--- TCC	.983	.050	19.489	***	
Q4 <--- SYQ	1.209	.064	18.940	***	
S11 <--- SUC	.997	.052	19.250	***	
S6 <--- SUC	.934	.049	19.026	***	
S5 <--- SUC	.968	.049	19.560	***	
S4 <--- SUC	.930	.051	18.073	***	
S3 <--- SUC	.948	.049	19.188	***	
S2 <--- SUC	.984	.051	19.272	***	
S1 <--- SUC	1.044	.052	20.045	***	
C1 <--- ORC	1.000				
C2 <--- ORC	1.134	.064	20.283	***	
C5 <--- ORC	1.180	.062	20.766	***	
C3 <--- ORC	.977	.058	19.252	***	
C6 <--- ORC	.982	.059	19.235	***	
P3 <--- PRM	1.078	.052	20.617	***	
Q2 <--- SYQ	1.188	.064	18.612	***	
V6 <--- VES	.951	.047	20.323	***	
S14 <--- SUC	.979	.049	20.117	***	
C4 <--- ORC	.971	.056	19.165	***	
T3 <--- TCC	.996	.050	20.016	***	

Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
W1 <--- EWC	.826
W2 <--- EWC	.789
W3 <--- EWC	.837
W4 <--- EWC	.753
W5 <--- EWC	.819
B5 <--- BPR	.811
B3 <--- BPR	.831
B2 <--- BPR	.846
B1 <--- BPR	.829
P1 <--- PRM	.822
P2 <--- PRM	.831
P6 <--- PRM	.857
T5 <--- TCC	.826

	Estimate
T2 <--- TCC	.824
T1 <--- TCC	.825
Q1 <--- SYQ	.776
Q3 <--- SYQ	.863
Q5 <--- SYQ	.852
V5 <--- VES	.834
V4 <--- VES	.837
V3 <--- VES	.820
V2 <--- VES	.813
V1 <--- VES	.829
S8 <--- SUC	.813
S9 <--- SUC	.844
S10 <--- SUC	.846
S12 <--- SUC	.811
S13 <--- SUC	.820
B4 <--- BPR	.840
P4 <--- PRM	.849
T4 <--- TCC	.819
Q4 <--- SYQ	.861
S11 <--- SUC	.814
S6 <--- SUC	.808
S5 <--- SUC	.823
S4 <--- SUC	.780
S3 <--- SUC	.813
S2 <--- SUC	.815
S1 <--- SUC	.837
C4 <--- ORC	.852
C1 <--- ORC	.826
C3 <--- ORC	.804
C5 <--- ORC	.798
C6 <--- ORC	.815
P3 <--- PRM	.850
Q2 <--- SYQ	.849
C2 <--- ORC	.831
V6 <--- VES	.836
S14 <--- SUC	.839
T3 <--- TCC	.833

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
EWC	2.581	.263	9.815	***	

	Estimate	S.E.	C.R.	P	Label
BPR	2.536	.265	9.572	***	
PRM	2.343	.240	9.781	***	
TCC	2.290	.233	9.814	***	
SYQ	1.753	.196	8.951	***	
VES	2.412	.244	9.902	***	
ORC	2.232	.251	9.670	***	
SUC	2.357	.243	9.693	***	
e1	1.205	.097	12.378	***	
e2	1.281	.101	12.736	***	
e3	1.042	.085	12.234	***	
e4	1.474	.114	12.981	***	
e5	1.109	.089	12.457	***	
e11	1.324	.103	12.794	***	
e9	1.013	.080	12.602	***	
e8	1.018	.082	12.428	***	
e7	1.207	.096	12.625	***	
e13	1.127	.088	12.769	***	
e14	1.057	.083	12.688	***	
e18	.972	.078	12.388	***	
e24	1.116	.089	12.522	***	
e21	1.079	.086	12.537	***	
e20	1.076	.086	12.532	***	
e26	1.158	.090	12.862	***	
e28	.876	.074	11.912	***	
e30	1.032	.085	12.103	***	
e36	.969	.077	12.628	***	
e35	.965	.077	12.605	***	
e34	1.052	.082	12.760	***	
e33	1.096	.085	12.818	***	
e32	1.101	.087	12.685	***	
e53	1.207	.090	13.468	***	
e54	1.085	.081	13.364	***	
e55	.941	.070	13.356	***	
e57	1.199	.089	13.475	***	
e58	1.068	.079	13.449	***	
e46	1.100	.082	13.391	***	
e47	1.153	.086	13.462	***	
e48	1.089	.081	13.469	***	
e49	1.316	.097	13.547	***	
e50	1.050	.078	13.438	***	
e10	1.087	.087	12.509	***	
e16	.872	.070	12.487	***	
e23	1.086	.086	12.591	***	

	Estimate	S.E.	C.R.	P	Label
e29	.897	.075	11.959	***	
e51	1.093	.081	13.482	***	
e56	1.190	.088	13.464	***	
e15	1.048	.084	12.477	***	
e27	.957	.079	12.144	***	
e37	.942	.075	12.616	***	
e59	.952	.071	13.384	***	
e22	.999	.080	12.436	***	

Squared Multiple Correlations: (Group number 1 - Default model)

	Estimate
T3	.694
S14	.703
V6	.698
C1	.682
C2	.691
C3	.649
Q2	.721
P3	.722
S11	.663
S6	.653
Q4	.741
T4	.671
P4	.721
B4	.705
S5	.678
S4	.608
S3	.660
S2	.664
S1	.700
C6	.664
C5	.719
S13	.672
S12	.657
S10	.715
S9	.712
S8	.661
V1	.686
V2	.661
V3	.673
V4	.700
V5	.696

	Estimate
Q5	.726
Q3	.745
Q1	.602
T1	.680
T2	.679
T5	.682
C4	.637
P6	.734
P2	.690
P1	.675
B1	.687
B2	.716
B3	.691
B5	.657
W5	.671
W4	.567
W3	.700
W2	.623
W1	.682

Structural Model

ERP Implementation Success

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	109	2342.971	881	.000	2.659
Saturated model	990	.000	0		
Independence model	44	19060.025	946	.000	20.148

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.095	.786	.759	.699
Saturated model	.000	1.000		
Independence model	2.206	.051	.007	.049

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.877	.868	.920	.913	.919
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.931	.817	.856
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	1461.971	1322.248	1609.309
Saturated model	.000	.000	.000
Independence model	18114.025	17668.725	18565.712

FMIN

Model	FMIN	F0	LO 90	HI 90

Model	FMIN	F0	LO 90	HI 90
Default model	6.117	3.817	3.452	4.202
Saturated model	.000	.000	.000	.000
Independence model	49.765	47.295	46.132	48.474

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.066	.063	.069	.000
Independence model	.224	.221	.226	.000

Estimates (Group number 1 - Default model)

Scalar Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
SUC <--- EWC	.170	.084	2.026	.043	
SUC <--- BPR	-.171	.138	-1.243	.214	
SUC <--- PRM	.313	.091	3.425	***	
SUC <--- TCC	.304	.107	2.839	.005	
SUC <--- SYQ	.208	.075	2.779	.005	
SUC <--- VES	.232	.091	2.537	.011	
SUC <--- EWC*ORC	.290	.114	2.541	.011	
SUC <--- BPR *ORC	-.244	.168	-1.448	.148	
SUC <--- PRM*ORC	.281	.127	2.210	.027	
SUC <--- TCC *ORC	.278	.127	2.192	.028	
SUC <--- SYQ *ORC	.225	.087	2.578	.010	
SUC <--- VES *ORC	.202	.079	2.558	.011	
W1 <--- EWC	1.000				
W2 <--- EWC	.906	.049	18.415	***	
W3 <--- EWC	.971	.048	20.124	***	
W4 <--- EWC	.864	.050	17.186	***	
W5 <--- EWC	.935	.048	19.467	***	
B5 <--- BPR	1.000				
B3 <--- BPR	.945	.049	19.470	***	
B2 <--- BPR	1.007	.050	19.996	***	
B1 <--- BPR	1.023	.053	19.394	***	
P1 <--- PRM	1.000				
P2 <--- PRM	1.002	.050	19.894	***	
P4 <--- PRM	.980	.048	20.584	***	

		Estimate	S.E.	C.R.	P	Label
P6	<--- PRM	1.069	.051	20.877	***	
T5	<--- TCC	1.026	.051	20.051	***	
T2	<--- TCC	1.004	.050	19.997	***	
T1	<--- TCC	1.004	.050	20.016	***	
Q1	<--- SYQ	1.000				
Q2	<--- SYQ	1.188	.064	18.612	***	
Q3	<--- SYQ	1.209	.064	19.015	***	
Q5	<--- SYQ	1.248	.067	18.689	***	
V5	<--- VES	.960	.047	20.276	***	
V4	<--- VES	.966	.047	20.363	***	
V3	<--- VES	.946	.048	19.732	***	
V2	<--- VES	.941	.048	19.461	***	
V1	<--- VES	1.000				
S8	<--- SUC	1.000				
S9	<--- SUC	1.066	.053	20.301	***	
S10	<--- SUC	1.002	.049	20.375	***	
S12	<--- SUC	.987	.052	19.114	***	
S13	<--- SUC	.963	.050	19.428	***	
B4	<--- BPR	1.012	.051	19.764	***	
T4	<--- TCC	.987	.050	19.795	***	
Q4	<--- SYQ	1.209	.064	18.940	***	
S11	<--- SUC	.997	.052	19.250	***	
S14	<--- SUC	.979	.049	20.117	***	
S6	<--- SUC	.934	.049	19.026	***	
S5	<--- SUC	.968	.049	19.560	***	
S4	<--- SUC	.930	.051	18.073	***	
S3	<--- SUC	.948	.049	19.188	***	
S2	<--- SUC	.984	.051	19.272	***	
S1	<--- SUC	1.044	.052	20.045	***	
P3	<--- PRM	1.078	.052	20.617	***	
T3	<--- TCC	1.000				
V6	<--- VES	.951	.047	20.323	***	
WO1	<--- EWC*ORC	1.000				
WO2	<--- EWC*ORC	.940	.049	19.324	***	
WO3	<--- EWC*ORC	.947	.048	19.628	***	
WO4	<--- EWC*ORC	.971	.048	20.393	***	
WO5	<--- EWC*ORC	.959	.048	20.118	***	
BO5	<--- BPR *ORC	1.000				
BO3	<--- BPR *ORC	.946	.049	19.360	***	
BO2	<--- BPR *ORC	1.009	.051	19.919	***	
BO1	<--- BPR *ORC	1.025	.053	19.311	***	
PO1	<--- PRM*ORC	1.000				
PO2	<--- PRM*ORC	.999	.050	19.809	***	

	Estimate	S.E.	C.R.	P	Label
PO4 <--- PRM*ORC	.978	.050	19.484	***	
PO6 <--- PRM*ORC	1.020	.051	19.819	***	
TO5 <--- TCC *ORC	.932	.046	20.078	***	
TO2 <--- TCC *ORC	.939	.045	20.771	***	
TO1 <--- TCC *ORC	.927	.046	20.056	***	
QO1 <--- SYQ *ORC	1.000				
QO2 <--- SYQ *ORC	.907	.049	18.551	***	
QO3 <--- SYQ *ORC	.966	.048	20.118	***	
QO5 <--- SYQ *ORC	.930	.048	19.424	***	
VO5 <--- VES *ORC	1.248	.067	18.702	***	
VO4 <--- VES *ORC	1.208	.064	18.938	***	
VO3 <--- VES *ORC	1.208	.064	19.009	***	
VO2 <--- VES *ORC	1.188	.064	18.629	***	
VO1 <--- VES *ORC	1.000				
BO4 <--- BPR *ORC	1.019	.051	19.814	***	
TO4 <--- TCC *ORC	.918	.043	21.543	***	
QO4 <--- SYQ *ORC	.862	.050	17.231	***	
PO3 <--- PRM*ORC	.992	.049	20.053	***	
TO3 <--- TCC *ORC	1.000				

Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
SUC <--- EWC	.178
SUC <--- BPR	-.178
SUC <--- PRM	.312
SUC <--- TCC	.298
SUC <--- SYQ	.179
SUC <--- VES	.234
SUC <--- EWC*ORC	.293
SUC <--- BPR *ORC	-.252
SUC <--- PRM*ORC	.277
SUC <--- TCC *ORC	.296
SUC <--- SYQ *ORC	.236
SUC <--- VES *ORC	.174
W1 <--- EWC	.826
W2 <--- EWC	.789
W3 <--- EWC	.837
W4 <--- EWC	.753
W5 <--- EWC	.819
B5 <--- BPR	.811
B3 <--- BPR	.831
B2 <--- BPR	.846

			Estimate
B1	<---	BPR	.829
P1	<---	PRM	.822
P2	<---	PRM	.831
P4	<---	PRM	.849
P6	<---	PRM	.857
T5	<---	TCC	.826
T2	<---	TCC	.824
T1	<---	TCC	.825
Q1	<---	SYQ	.776
Q2	<---	SYQ	.849
Q3	<---	SYQ	.863
Q5	<---	SYQ	.852
V5	<---	VES	.834
V4	<---	VES	.837
V3	<---	VES	.820
V2	<---	VES	.813
V1	<---	VES	.829
S8	<---	SUC	.813
S9	<---	SUC	.844
S10	<---	SUC	.846
S12	<---	SUC	.811
S13	<---	SUC	.820
B4	<---	BPR	.840
T4	<---	TCC	.819
Q4	<---	SYQ	.861
S11	<---	SUC	.814
S14	<---	SUC	.839
S6	<---	SUC	.808
S5	<---	SUC	.823
S4	<---	SUC	.780
S3	<---	SUC	.813
S2	<---	SUC	.815
S1	<---	SUC	.837
P3	<---	PRM	.850
T3	<---	TCC	.833
V6	<---	VES	.836
WO1	<---	EWC*ORC	.827
WO2	<---	EWC*ORC	.811
WO3	<---	EWC*ORC	.820
WO4	<---	EWC*ORC	.840
WO5	<---	EWC*ORC	.833
BO5	<---	BPR *ORC	.809
BO3	<---	BPR *ORC	.830

	Estimate
BO2 <--- BPR *ORC	.846
BO1 <--- BPR *ORC	.829
PO1 <--- PRM*ORC	.826
PO2 <--- PRM*ORC	.826
PO4 <--- PRM*ORC	.817
PO6 <--- PRM*ORC	.826
TO5 <--- TCC *ORC	.815
TO2 <--- TCC *ORC	.832
TO1 <--- TCC *ORC	.814
QO1 <--- SYQ *ORC	.828
QO2 <--- SYQ *ORC	.792
QO3 <--- SYQ *ORC	.835
QO5 <--- SYQ *ORC	.816
VO5 <--- VES *ORC	.852
VO4 <--- VES *ORC	.860
VO3 <--- VES *ORC	.863
VO2 <--- VES *ORC	.850
VO1 <--- VES *ORC	.776
BO4 <--- BPR *ORC	.843
TO4 <--- TCC *ORC	.850
QO4 <--- SYQ *ORC	.753
PO3 <--- PRM*ORC	.832
TO3 <--- TCC *ORC	.842

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
EWC	2.581	.263	9.815	***	
BPR	2.536	.265	9.572	***	
PRM	2.343	.240	9.781	***	
TCC	2.270	.228	9.969	***	
SYQ	1.753	.196	8.951	***	
VES	2.412	.244	9.902	***	
EWC*ORC	2.404	.244	9.864	***	
BPR*ORC	2.523	.265	9.539	***	
PRM*ORC	2.299	.234	9.847	***	
TCC*ORC	2.676	.263	10.161	***	
SYQ*ORC	2.592	.263	9.846	***	
VES*ORC	1.753	.196	8.954	***	
e62	.003	.012	.231	.817	
e1	1.205	.097	12.378	***	
e2	1.281	.101	12.736	***	
e3	1.042	.085	12.234	***	

	Estimate	S.E.	C.R.	P	Label
e4	1.474	.114	12.981	***	
e5	1.109	.089	12.457	***	
e11	1.324	.103	12.794	***	
e9	1.013	.080	12.602	***	
e8	1.018	.082	12.428	***	
e7	1.207	.096	12.625	***	
e13	1.127	.088	12.769	***	
e14	1.057	.083	12.688	***	
e17	.872	.070	12.487	***	
e18	.972	.078	12.388	***	
e25	.999	.080	12.436	***	
e24	1.116	.089	12.522	***	
e21	1.079	.086	12.537	***	
e20	1.076	.086	12.532	***	
e26	1.158	.090	12.862	***	
e27	.957	.079	12.144	***	
e28	.876	.074	11.912	***	
e30	1.032	.085	12.103	***	
e36	.969	.077	12.628	***	
e35	.965	.077	12.605	***	
e34	1.052	.082	12.760	***	
e33	1.096	.085	12.818	***	
e32	1.101	.087	12.685	***	
e53	1.207	.090	13.468	***	
e54	1.085	.081	13.364	***	
e55	.941	.070	13.356	***	
e57	1.199	.089	13.475	***	
e58	1.068	.079	13.449	***	
e46	1.100	.082	13.391	***	
e47	1.153	.086	13.462	***	
e48	1.089	.081	13.469	***	
e49	1.316	.097	13.547	***	
e50	1.050	.078	13.438	***	
e10	1.087	.087	12.509	***	
e23	1.086	.086	12.591	***	
e29	.897	.075	11.959	***	
e51	1.093	.081	13.482	***	
e56	1.190	.088	13.464	***	
e59	.952	.071	13.384	***	
e15	1.048	.084	12.477	***	
e37	.942	.075	12.616	***	

Squared Multiple Correlations: (Group number 1 - Default model)

	Estimate
SUC	.999
V6	.698
P3	.722
S14	.703
S11	.663
S6	.653
Q4	.741
T4	.671
B4	.705
S5	.678
S4	.608
S3	.660
S2	.664
S1	.700
S13	.672
S12	.657
S10	.715
S9	.712
S8	.661
V1	.686
V2	.661
V3	.673
V4	.700
V5	.696
Q5	.726
Q3	.745
Q2	.721
Q1	.602
T1	.680
T2	.679
T5	.682
T3	.694
P6	.734
P4	.721
P2	.690
P1	.675
B1	.687
B2	.716
B3	.691
B5	.657
W5	.671

	Estimate
W4	.567
W3	.700
W2	.623
W1	.682
WO1	.684
WO2	.658
WO3	.672
WO4	.706
WO5	.694
BO5	.654
BO3	.689
BO2	.716
BO1	.687
PO1	.683
PO2	.682
PO4	.667
PO6	.682
TO5	.664
TO2	.692
TO1	.662
QO1	.686
QO2	.627
QO3	.697
QO5	.666
VO5	.726
VO4	.740
VO3	.745
VO2	.722
VO1	.602
BO4	.711
TO4	.723
QO4	.566
PO3	.692
TO3	.709